II. REMARKS

Upon entry of the present amendment, claims 1 to 7, 9 to 33, and 35 will be pending. It is noted in Office Action that claims 32 and 33 are allowed, and that claims 8 to 11 are objected to as depending from a rejected claim, but otherwise are free of the prior art. Applicants point out that claim 1 has been amended to incorporate the language of claim 8. In view of this amendment, and for the reasons set forth below, it is submitted that the claims are in condition for allowance.

A. Regarding the Information Disclosure Statement

Applicants note that an Information Disclosure Statement (IDS) was mailed July 29, 2003, in connection with the subject application. However, an initialed copy of the IDS, indicating that the references cited therein were considered by the Examiner was not received with the present Office Action, as it may have been matched with the file after the present Action was submitted.

Applicants respectfully request that the Examiner return an initialed copy of the IDS mailed July 29, 2003, with the next Communication in this case. The Examiner is invited to contact Applicants' undersigned representative if copies of the IDS and cited references are not readily available.

B. Regarding the Amendments

The specification has been amended to preserve the proprietary interest in the trademarked term "Zeocin~~TM~~" by using the term as an adjective. As such, the amendment merely addresses a formality, and does not add new matter.

Claims 8 and 34 are cancelled herein without disclaimer, and without prejudice to Applicants' pursuing prosecution of subject matter encompassed within one or both claims in an application claiming the benefit of priority of the subject application.

Claim 1 has been amended to incorporate the language of originally filed claim 8, which has been cancelled herein. As such, the amendment does not add new matter.

Claim 4 has been amended to clarify that that term "eIF" refers to "eukaryotic initiation factor" and that the term "nCBP" refers to "nuclear cap binding protein." The amendment merely clarifies the abbreviations of terms well known in the art (see, e.g., Ruud et al., *J. Biol. Chem.* 273:10325-10330, 1998, which is attached as Exhibit A; see Abstract, and footnote 1 on page 10325, describing exemplary cap binding proteins, including eIF's and nCBP). As such, the amendment merely addresses an informality, and does not add new matter.

Claim 9, which previously depended from claim 8 (cancelled herein), has been amended to depend from claim 1, which incorporates the language of previously pending claim 8 and, therefore, provides the requisite antecedent basis. As such, the amendment merely addresses a formality, and does not add new matter.

Claim 10 has been amended along the lines suggested in the Office Action to clarify the claimed subject matter. It is submitted that the amendment merely addresses a formality, and, therefore, does not add new matter.

New claim 35 has been added. Claim 35 is supported, for example, at page 7, lines 15-23, and, therefore, does not add new matter.

C. Regarding the Restriction Requirement

Pursuant to the Restriction Requirement, claim 34 has been cancelled without prejudice.

D. Rejections under 35 U.S.C. § 112

The rejections of claims 4 and 10 under 35 U.S.C. § 112, second paragraph, as allegedly vague and indefinite are traversed.

It is stated in the Office Action that claim 4 is indefinite in referring to abbreviations, without first indicating the meaning of the term. Claim 4 has been amended to address this matter. As such, it is respectfully requested that this rejection be removed.

It also is stated that claim 10 is indefinite in reciting the term "capable of" because it is not clear whether the limitation following "capable of" is a property of the site-specific recombinase or a separate method step. It is suggested in the Office Action that the term "capable of recognizing" be amended to "which recognize". Claim 10 has been amended as suggested by the Examiner. Accordingly, it is respectfully requested that this rejection be removed.

E. Prior Art Rejections

The rejection of claims 1, 12, 13, 20 and 21 under 35 U.S.C. § 102(b) as allegedly anticipated by Scheele is respectfully traversed.

It is stated in the Office Action that Scheele describes producing a full length coding sequence by synthesizing first strand cDNA using isolated full length mRNA, forming cDNA/mRNA hybrids; denaturing the hybrid strands; attaching a non-native tag sequence to the 3' end of the first strand cDNA; and producing a full length double stranded cDNA by synthesizing second strand cDNA using the tagged first strand cDNA, thus anticipating the subject matter of claim 1. It is further stated that Scheele describes amplifying the cDNA after the producing step, thus anticipating claim 12; inserting the full length cDNA into an expression vector, thus anticipating claim 13; and isolated full length coding sequences and vectors prepared by such methods, thus anticipating claims 21 and 22, respectively.

Applicants point out, however, that claim 1 has been amended to clarify that the method requires attaching a non-native tag sequence "comprising a recognition site for a site-specific recombinase" to the 3' end of the first strand cDNA. Scheele does not teach or suggest attaching such a non-native tag sequence the first strand cDNA and, therefore, does not anticipate the claimed methods. Accordingly, it is respectfully requested that the rejection of claims 1, 12, 13, 20 and 21 as anticipated by Scheele be removed.

The rejection of claims 1, 12, 13, 20 and 21 under 35 U.S.C. § 102(b) as allegedly anticipated by Chenchik et al. is respectfully traversed. It is noted that the grounds of rejection inadvertently refer to "Scheele", but that the citations supporting the rejection correctly refer to the Chenchik et al. reference.

It is stated in the Office Action that Chenchik et al. describe producing a full length coding sequence by synthesizing first strand cDNA using isolated full length mRNA, forming cDNA/mRNA hybrids; denaturing the hybrid strands; attaching a non-native tag sequence to the 3' end of the first strand cDNA; and producing a full length double stranded cDNA by synthesizing second strand cDNA using the tagged first strand cDNA, thus anticipating the subject matter of claim 1. It is further stated that Chenchik et al. describes amplifying the cDNA after the producing step, thus anticipating claim 12; inserting the full length cDNA into an expression vector, thus anticipating claim 13; and isolated full length coding sequences and vectors prepared by such methods, thus anticipating claims 21 and 22, respectively.

As mentioned above, claim 1 has been amended to clarify that the method requires attaching a non-native tag sequence "comprising a recognition site for a site-specific recombinase" to the 3' end of the first strand cDNA. Chenchik et al. do not teach or suggest attaching such a non-native tag sequence to the first strand cDNA and, therefore, do not anticipate the claimed subject matter. Accordingly, it is respectfully requested that the rejection of claims 1, 12, 13, 20 and 21 as anticipated by Chenchik et al. be removed.

The rejection of claim 4 under 35 U.S.C. § 103(a) as allegedly obvious over Chenchik et al. in view of Edery is respectfully traversed.

Chenchik et al. is applied as described above, and Edery is combined as describing producing a full length cDNA based on an affinity selection methods using a fusion protein containing a murine cap-binding protein (eIFE4) coupled to a solid support to isolate mRNA via the 5' cap structure. As such, it is alleged that the subject matter of claim 4 would have been obvious because one of ordinary skill in the art would have combined the method of producing a full length cDNA as described by Chenchik et al. with the method of purifying mRNA using a cap binding protein due to the advantages described by Edery.

As discussed above, however, Chenchik et al. do not teach or suggest attaching a non-native tag sequence "comprising a recognition site for a site-specific recombinase" to the 3' end of the first strand cDNA, as required by claim 1, from which claim 4 depends. Edery also does not teach or suggest attaching such a non-native tag sequence as required by the claims and, therefore, does not provide the teaching missing in the Chenchik et al. reference. Accordingly, it is submitted that the method of claim 4 would not have been obvious in view of the cited references, either alone or in combination, and, therefore, respectfully requested that the rejection of claim 4 as obvious over Chenchik et al. in view of Edery be removed.

The rejection of claims 2, 3, 5 to 7, 13 to 19, 21 and 30 under 35 U.S.C. § 103(a) as allegedly obvious over Chenchik et al. in view of Carninci et al. is respectfully traversed.

Chenchik et al. is applied as described above, and Carninci et al. is combined as describing a method similar to that of Chenchik et al., and further describing isolating mRNA using an affinity purification material including one or more cap binding proteins bound to a solid support, including that such a method provides the advantage of selecting only full length cDNA. Carninci et al. is further applied as describing that the affinity purification material can

be a streptavidin complex solid support; that the cDNA can be inserted into an expression vector; that the method of producing a full length cDNA can further include contacting the cDNA/mRNA hybrids with a substance that degrades single stranded RNA (e.g., RNAse I); that the mRNA component of the cDNA/mRNA hybrid can comprise a biotinylated cap structure; and that the cDNA can be contained in an expression (e.g., a prokaryotic expression vector such as a Lambda Zap II vector). As such, it is alleged that the subject matter of claims 2, 3, 5 to 7, 13 to 19, 21 and 30 would have been obvious because one of ordinary skill in the art would have combined the method of producing a full length cDNA as described by Chenchik et al. with the methods described by Carninci et al. due to the advantages described by Carninci et al.

As discussed above, Chenchik et al. do not teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase" to the 3' end of the first strand cDNA, as required by the claims. Carninci et al. also do not teach or suggest attaching such a non-native tag sequence as required by the claims and, therefore, do not provide the teaching missing in the Chenchik et al. reference. Accordingly, it is submitted that the claimed subject matter would not have been obvious in view of the cited references, either alone or in combination, and, therefore, respectfully requested that the rejection of claims 2, 3, 5 to 7, 13 to 19, 21 and 30 as obvious over Chenchik et al. in view of Carninci et al. be removed.

The rejection of claim 21 to 24, 30 and 31 under 35 U.S.C. § 103(a) as allegedly obvious over Chenchik et al. in view of Carninci et al. and Sambrook et al. is respectfully traversed.

Chenchik et al. and Carninci et al. are applied as described above. Sambrook et al. is applied as describing specific elements of an expression vector (e.g., a T7 promoter/enhancer and a selectable marker), and further describing a pMT expression vector. As such, it is alleged that the subject matter of claims 21 to 24, 30 and 31 would have been obvious.

As discussed above, however, neither Chenchik et al. nor Carninci et al. teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase

to the 3' end of the first strand cDNA, as required by the claims. Sambrook et al. also do not teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase to the 3' end of the first strand cDNA as required by the claims and, therefore, do not provide the teaching missing in the Chenchik et al. and/or Carninci et al. references. Accordingly, it is submitted that the claimed subject matter would not have been obvious in view of the cited references, either alone or in combination, and, therefore, respectfully requested that the rejection of claims 21 to 24, 30 and 31 as obvious over Chenchik et al. in view of Carninci et al. and Sambrook et al. be removed.

The rejection of claims 26 and 29 under 35 U.S.C. § 103(a) as allegedly obvious over Chenchik et al. in view of Carninci et al. and Jacobs et al. is respectfully traversed.

Chenchik et al. and Carninci et al. are applied as discussed above. Jacobs et al. is applied as describing vectors that comprise polypeptide encoding sequences such as an intein encoding sequences (e.g., a pBluescript II vector), and further describing advantages of using vectors comprising inteins. As such, it is alleged that one of ordinary skill in the art would have been motivated to combine the Chenchik et al. and Carninci et al. references with the Jacobs et al. reference because of the advantages described by Jacobs et al., and that the subject matter of claims 26 and 29 would have been obvious in view of the cited references.

As discussed above, neither Chenchik et al. nor Carninci et al. teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase to the 3' end of the first strand cDNA, as required by the claims. Jacobs et al. also do not teach or suggest attaching such a non-native tag sequence to the 3' end of the first strand cDNA, as required by the claims and, therefore, do not provide the teaching missing in the Chenchik et al. and/or Carninci et al. references. Accordingly, it is submitted that the claimed methods would not have been obvious in view of the cited reference, either alone or in combination, and, therefore respectfully

requested that the rejection of claims 26 and 29 as obvious over Chenchik et al. in view of Carninci et al. and Jacobs et al. be removed.

The rejection of claims 26 to 28 under 35 U.S.C. § 103(a) as allegedly obvious over Chenchik et al. in view of Carninci et al. and Elledge et al. is respectfully traversed.

Chenchik et al. and Carninci et al. are applied as described above. Elledge et al. is provided as describing a rapid cloning technique using an expression vector that is modified by insertion of a sequence-specific recombinase target site, and further describing that the vector can encode a protein domain such as an affinity domain (e.g., GST or polyhistidine). Elledge et al. indicate that an advantage of such vectors is that they permit the rapid exchange of a cDNA library to a variety of vectors.

As discussed above, neither Chenchik et al. nor Carninci et al. teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase to the 3' end of the first strand cDNA. Elledge et al. describe the use of a sequence specific recombinase recognition site, the site is inserted into a vector, but do not teach or suggest attaching a non-native tag sequence comprising a recognition site for a site-specific recombinase to the 3' end of the first strand cDNA. Instead, Elledge et al. describe that the vector, which contains the recombinase recognition site (e.g., lox P), further contains restriction endonuclease sites, which provide a means for insertion of a gene of interest into the vector (see, e.g., column 1, lines 55-64; column 2, lines 42-45; see, also, paragraph bridging columns 12-13; column 22, lines 1-11, describing polylinker for insertion of gene of interest downstream of lox P (recombinase) site; and Figs. 2A and 2B). As such, Elledge et al. do not provide the teaching missing in the Chenchik et al. and/or Carninci et al. references. Accordingly, it is submitted that the claimed methods would not have been obvious in view of the cited references, either alone or in combination, and, therefore, respectfully requested that the rejection of claims 26 to 28 as obvious over Chenchik et al. in view of Carninci et al. and Elledge et al. be removed.

In summary, the claims have been amended to incorporate the language of claim 8, which is indicated in the Office Action as being free of the art, and, as discussed above, the cited references do not teach or suggest the claimed subject matter. Accordingly, in view of the amendments and above remarks, it is submitted that the claims are in condition for allowance, and a notice to that effect is respectfully requested. The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to the subject application.

The Commissioner is authorized to charge Deposit Account No. 50-1355 if any additional fee is deemed necessary.

Respectfully submitted,

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